# 6FM7

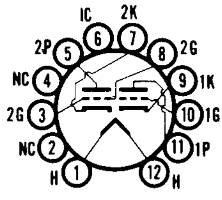
**13FM7, 15FM7**

*Color Television Type*

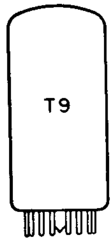
## VERTICAL DEFLECTION OSCILLATOR and AMPLIFIER

**Double Dissimilar Triode**

| | |
|---|---|
| Construction | Compactron T-9 |
| Base | Button 12 Pin, E12-70 |
| Basing | 12EJ |
| Outline | 9-58 |
| Maximum Diameter | 1.188 In. |
| Maximum Seated Height | 2.000 In. |
| Maximum Overall Height | 2.375 In. |




12EJ




## ELECTRICAL DATA

### HEATER OPERATION

| | 15FM7 | 13FM7 | 6FM7 |
|---|---|---|---|
| Heater Voltage | 14.8 | 13.0 | 6.3 Volts |
| Heater Current | 450 | 450 | 1005 Ma |
| Heater Warm-up Time | 11 | 11 | — Seconds |
| Maximum Heater-Cathode Voltage | | | |
| Heater Negative with Respect to Cathode | | | |
| Total DC and Peak | | | 200 Volts |
| Heater Positive with Respect to Cathode | | | |
| DC | | | 100 Volts |
| Total DC and Peak | | | 200 Volts |

### DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

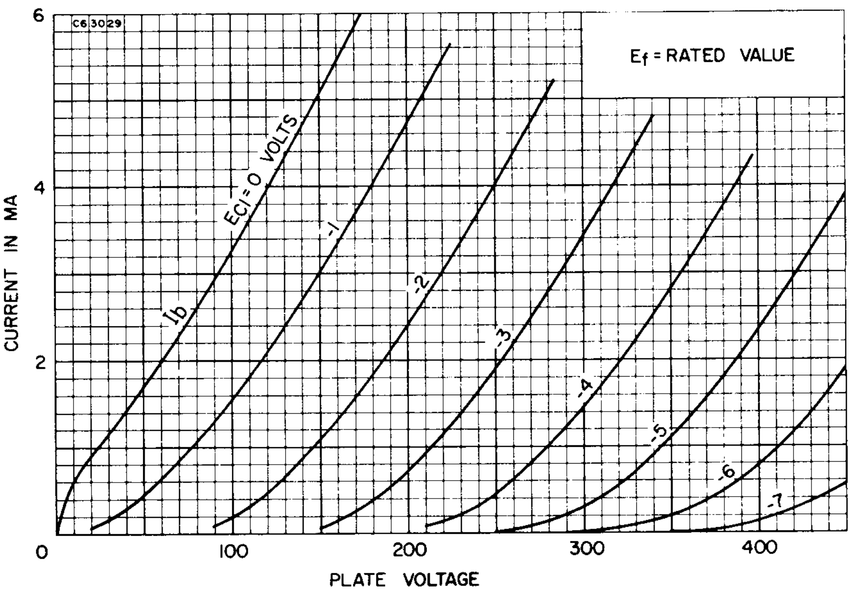
| | Section No. 1 | Section No. 2 |
|---|---|---|
| Grid to Plate | 4.0 | 7.0 Pf |
| Input: g to (h + k) | 2.4 | 7.0 Pf |
| Output: p to (h + k) | 0.40 | 1.1 Pf |

### RATINGS (Design Maximum Rating System)

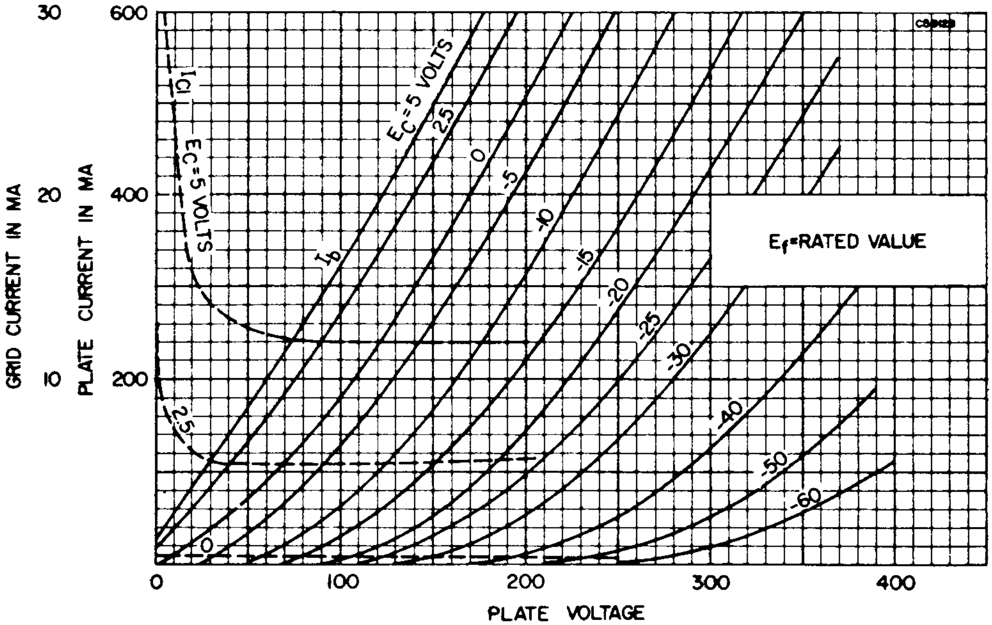
**Vertical Deflection Oscillator and Amplifier(1)**

| | Section(2) No. 1 Oscillator | Section(2) No. 2 Amplifier |
|---|---|---|
| Plate Voltage (Max.) | 350 | 550 Volts |
| Peak Positive Pulse Plate Voltage (Max.) | — | 1500 Volts |
| Peak Negative Pulse Grid Voltage (Max.) | 400 | 250 Volts |
| Plate Dissipation (Max.)(3) | 1.0 | 10 Watts |
| Average Cathode Current (Max.) | — | 50 Ma |
| Peak Cathode Current (Max.) | — | 175 Ma |
| Grid Circuit Resistance, Self Bias (Max.) | 2.2 | 2.2 Megohms |

### AVERAGE PLATE CHARACTERISTICS
### (Section No. 1)



## AVERAGE PLATE CHARACTERISTICS (Section No. 2)




### CHARACTERISTICS AND TYPICAL OPERATION

| | Section No. 1 | Section No. 2 |
|---|---|---|
| Plate Voltage | 250 | 175 Volts |
| Grid No. 1 Voltage | –3 | –25 Volts |
| Plate Current | 2.0 | 40 Ma |
| Transconductance | 2200 | 6000 μmhos |
| Amplification Factor | 66 | 5.5 |
| Plate Resistance (Approx.) | 30,000 | 920 Ohms |
| Ec for Ib = 20 μa (Approx.) | –5.3 | — Volts |
| Ec for Ib = 200 μa (Approx.) | — | –45 Volts |

**NOTES:**

(1) For operation in a 525 line, 30 frame system as described in "Standards of Good Engineering Practice for Television Broadcast Stations; Federal Communications Commission," the duty cycle of the voltage pulse not to exceed 15% of one horizontal scanning cycle.

(2) Section No. 1 connects to Pins 6, 7 and 8. Section No. 2 connects to Pins 1, 2, 3, and 9.

(3) In stages operating with grid leak bias, an adequate bias resistor or other suitable means is required to protect the tube in the absence of excitation.